

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY  
(Attorney Docket No. 03251.00002)

In the Application of:

CONIX CORPORATION, et al.

Serial No.: PCT/US00/27198

Filed: October 3, 2000

For: Injection Molding Techniques Utilizing Interlocking  
Knit Lines

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) IPEA/US

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) Authorized Officer:  
) Jill L. Heitbrink  
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TRANSMITTAL LETTER

BOX PCT  
Assistant Commissioner for Patents  
Washington, D.C. 20231

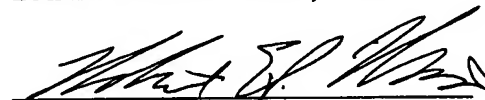
Sir:

In regard to the above-identified application:

1. We are transmitting herewith: Reply to Written Opinion mailed May 29, 2001, Transmittal Letter, Certificate of Mailing by Express Mail, and Return Postcard.
2. CERTIFICATE OF MAILING UNDER 37 CFR 1.10: The undersigned hereby certifies that this Transmittal Letter and the papers, as described in paragraph 1 hereinabove, are being transmitted by "Express Mail, Post Office to Addressee," (Express Mail No. EL735120436US) addressed to BOX PCT, Attn: IPEA/US, Assistant Commissioner for Patents, Washington, D.C. 20231 on this 27th day of July, 2001.

Respectfully submitted,  
BANNER & WITCOFF, LTD.

By:



Robert H. Resis, Reg. No. 32,168

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(312) 715-1000  
Attorneys for Applicant

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REPLY TO WRITTEN OPINION

BOX PCT  
 Commissioner for Patents and Trademarks  
 Washington, D.C. 20231

Dear Sir:

Applicant respectfully submits the following remarks in reply to the Written Opinion mailed May 29, 2001.

REMARKS

The Written Opinion states that Claims 1-5 and 8-12 lack novelty under Article 33(2) PCT as being anticipated by Ellwood et al. (U.S. Patent No. 5,833,913). Applicant respectfully submits that Ellwood et al. does not disclose nor teach the method or apparatus as claimed.

Ellwood et al. teaches a method for improving the strength of a weld line by providing disrupters on the face of the mold near the interfacial regions of the mold where the two injection streams meet. By disrupting the flow fronts, the flow front fragments and the flow cores become more interspersed which improves the weld line strength. However, the weld line is still generally planar across the cross section of the part being molded (Figs. 3a and 4a). Ellwood et al. does not disclose nor suggest interlocking the knit lines as claimed in claim 1 and 8. Thus, applicant submits that Ellwood et al. does not anticipate Claims 1-5 and 8-12.

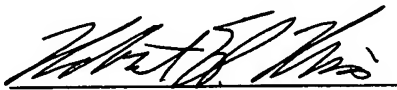
The Written Opinion has stated that Claims 1, 2, 8 and 9 lack novelty under Article 33(2) PCT as being anticipated by Kirby et al. (U.S. Patent No. 4,399,093). Kirby et al. teaches the use of solidifying one of the injections streams before the other thereby providing an enlarged weld line. Kirby et al. does not disclose forming an interlock knit line geometry as claimed in Claims 1 and 8. Thus, applicant submits that Kirby et al. does not anticipate Claims 1, 2, 8 and 9.

Applicant submits that none of the prior art references as cited by the Examiner fairly teaches or suggests the method and apparatus as claimed in Claims 1-5 and 8-12. None of the prior art even hints at causing the flow fronts of the two opposing injection streams to co-mingle or "handshake" to form the interlocking knit line as described at page 5 of the specification and as shown in Figures 3 through 6 of the present application. Thus, applicant respectfully submits that Claims 1-5 and 8-12 meet the criteria of Article 33(3) PCT and does involve an inventive step.

The Examiner is invited to contact the undersigned counsel should it be deemed helpful to facilitate prosecution of the application.

Respectfully submitted,  
BANNER & WITCOFF, LTD.

Date: July 27, 2001

By: 

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IC10 Rec'd PCT/PTO 02 APR 2002

## CERTIFICATE OF MAILING BY "EXPRESS MAIL"

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Deposited April 2, 2002

I hereby certify that the attached correspondence, identified below, is being deposited with the United States Postal Service as "Express Mail Post Office to Addressee" under 37 CFR 1.10 on the date indicated above and is addressed to: BOX PCT, DO/EO/US, Assistant Commissioner for Patents, Washington, DC 20231.

By: 

(person actually depositing)

Patent Application of: Conix Corporation  
International Application: PCT/US00/27198  
Attorney Docket: 03251.00018  
Title: Injection Molding Techniques Utilizing Interlocking Knit Lines

1	2 sheets	PTO Form 1390 - Transmittal Letter Concerning a Filing under 35USC371
1	3 sheets	Executed Oath and Declaration
1	2 sheets	Information Disclosure Statement
1	1 sheet	PTO/SB8A
7		Cited References
1	4 sheets	Written Opinion
1	3 sheets	Response to Written Opinion
1	6 sheets	International Preliminary Examination Report
1	9 sheets	International Publication WO 01/24986 (w/ Int'l Search Report)
3		Forms PCT/IB/301 - 304 - 308
1		Certificate of Express Mailing
1		Return Postcard

TRANSMITTAL LETTER TO THE  
UNITED STATES RECEIVING OFFICE

April 2, 2002	10/089750
International Application No.	
Attorney Docket No.	03251.00018

JC02 Rec'd PCT/PTO 02 APR 2002

I. Certification under 37 CFR 1.10 (if applicable)

EL949629595US
Express Mail mailing number

I hereby certify that the application/correspondence attached hereto is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231

Signature of person mailing correspondence
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April 2, 2002
Date of Deposit

Typed or printed name of person mailing correspondence
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II. [X] New International Application

TITLE	INJECTION MOLDING TECHNIQUES UTILIZING INTERLOCKING KNIT LINES	Earliest priority date (Day/Month/Year)
		05 October 1999

**SCREENING DISCLOSURE INFORMATION:** In order to assist in screening the accompanying international application for purposes of determining whether a license for foreign transmittal should and could be granted and for other purposes, the following information is supplied. (Note: check as many boxes as apply):

- A. ☐ The invention disclosed was not made in the United States.  
 B. ☐ There is no prior U.S. application relating to this invention.  
 C. ☐ The following prior U.S. application(s) contain subject matter which is related to the invention disclosed in the attached international application. (NOTE: *priority to these applications may or may not be claimed on form PCT/RO/101 (Request) and this listing does not constitute a claim for priority*)

application no.		filed on	
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- D. ☐ The present international application [ ] is identical to [ ] contains less subject matter than that found in the prior U.S. application(s) identified in paragraph C above.  
 E. ☐ The present international application [ ] contains additional subject matter not found in the prior U.S. application(s) identified in paragraph C above. The additional subject matter [ ] **DOES NOT ALTER [ ] MIGHT BE CONSIDERED TO ALTER** the general nature of the invention in a manner which would require the U.S. application to have been made available for inspection by the appropriate defense agencies under 35 U.S.C. 181 and 37 CFR 5.1. See 37 CFR 5.15.

III. [ ] A Response to an Invitation from the RO/US. The following document(s) is(are) enclosed:

- A. ☐ A Request for An Extension of Time to File a Response  
 B. ☐ A PCT Power of Attorney (General)  
 C. ☐ Replacement pages:

pages		of the request (PCT/RO/101)	pages		of the figures
pages		of the description	pages		of the abstract
pages		of the claims			

- D. ☐ Submission of Priority Documents  
 E. ☐ Fees as specified on attached Fee Calculation sheet form PCT/RO/101 annex

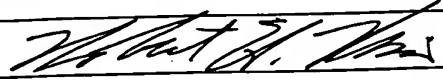
IV. [ ] A Request for Rectification under PCT Rule 91 [ ] A Petition [ ] A Sequence Listing Disk

V. [X] Other (please identify):

Executed Oath and Declaration (3 sheets)  
 Information Disclosure Statement (2 sheets)  
 PTO/SB8A  
 7 Cited References  
 Certificate of Express Mailing  
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PTO Form 1390 - Transmittal Letter Concerning a Filing under 35USC371 (2 sheets)  
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 International Preliminary Examination Report (6 sheets)  
 International Publication WO 01/24986 (w/ Int'l Search Report)  
 Forms PCT/IB/301 - 304 - 308

The person signing this form is the: ☐ Applicant ☐ Attorney/Agent (Reg. No. 32,168) ☐ Common Representative

Typed name of signer	ROBERT H. RESIS	Signature	
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